

#6

OIPE

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/800,103

DATE: 08/21/2001

TIME: 11:49:41

Input Set : A:\LEX-0143-USA SEQLIST.txt

Output Set: N:\CRF3\08162001\I800103.raw

4 <110> APPLICANT: Donoho, Gregory  
 5 Scoville, John  
 6 Zambrowicz, Brian  
 7 Cullinan, Emily  
 8 Kieke, James A.  
 9 Hu, Yi  
 10 Turner, C. Alexander Jr.  
 11 Walke, D. Wade  
 13 <120> TITLE OF INVENTION: Novel Human Transporter Proteins and  
 14 Polynucleotides Encoding the Same  
 17 <130> FILE REFERENCE: Lex-0143-USA  
 Ofc--> 19 <140> CURRENT APPLICATION NUMBER: US/09/800,103  
 C--> 19 <141> CURRENT FILING DATE: 2001-03-06  
 19 <150> PRIOR APPLICATION NUMBER: US 60/187,120  
 20 <151> PRIOR FILING DATE: 2000-03-06  
 22 <150> PRIOR APPLICATION NUMBER: US 60/204,725  
 23 <151> PRIOR FILING DATE: 2000-05-16  
 25 <160> NUMBER OF SEQ ID NOS: 40  
 27 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 29 <210> SEQ ID NO: 1  
 30 <211> LENGTH: 1311  
 31 <212> TYPE: DNA  
 32 <213> ORGANISM: Homo sapiens  
 34 <400> SEQUENCE: 1

35	atgcagccac	ccccagacga	ggcccgccagg	gacatggccg	gggacaccca	gtggtccagg	60
36	cccgagtgcc	aggcatggac	ggggacgctg	ctgctggca	cgtgccttct	gtactgcgcc	120
37	cgtccagca	tgcccacatcg	caccgtctcc	atgagccagg	acttcggctg	gaacaagaag	180
38	gaggccggca	tcgtgctcag	cagttcttc	tggggctact	gcctgacaca	gttgtggc	240
39	ggcacacctcg	gggatccggat	tgggggtgag	aaggtcatcc	tgctgtcagc	ctctgcctgg	300
40	ggctccatca	cgggcgtcac	cccaactgctc	gcccacctga	gcagtgccca	cctggccttc	360
41	atgaccttct	cacgcacatcct	catgggcttg	ctccaagggg	tttacttccc	tgccctgacc	420
42	agcctgctgt	cgcagaaggt	gccccggaggt	gagcggaccc	tcacctacag	catcggtggc	480
43	gccccgtccc	atgttggac	gtgtctgacc	ggggcggtgg	gtccctgtct	cctgaaatgg	540
44	tacggcgtggc	agagcatctt	ctatttctcc	ggcggcctca	ccttgctttg	gtgtgggtac	600
45	gtgtacaggt	acctgctgag	tggggat	ctcatctgg	ccttgggtgt	cctggcccaa	660
46	agccggccgg	tgtccaggca	cagcagagtc	ccctggagac	ggctcttccg	gaaggctgct	720
47	gtotggcag	ccgtcgctc	ccagctctct	gcagctgtct	ccttcttcat	cctccctctcc	780
48	tggctgcca	ccttctcga	ggagaccttc	cccgacgcca	agggtggat	cttcaacgtg	840
49	gttccttgggt	tggggcgat	tccggccagt	ctattcagcg	gtttctctc	tgatcatctc	900
50	atacaatcagg	gttacagagc	catcacggtg	cggaagctca	tgcaggccat	gggccttggc	960
51	ctctccagcg	tctttgtct	gtgcctggc	cacacctcca	gtttctgtga	gtctgtggtc	1020
52	tttgcacatcg	cctccatcg	cctccagacc	ttcaaccaca	gtggcatttc	tgttaacatc	1080
53	caggacttgg	ccccgtcccg	cgccggcttt	ctgtttggtg	tggccaaacac	agccggggcc	1140
54	ttggcagggt	tcgtgggtgt	gtgtcttaggc	ggctacttga	tggagaccac	gggcctctgg	1200
55	acttgcctgt	tcaaccttgc	ggccatcatc	agcaacctgg	ggctgtgcac	cttcctgg	1260
56	tttggacagg	ctcagagggt	ggacctgagc	tctaccatg	aggacctcta	g	1311
58	<210>	SEQ ID NO: 2					

ENTERED

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59 <211> LENGTH: 436  
60 <212> TYPE: PRT  
61 <213> ORGANISM: Homo sapiens  
63 <400> SEQUENCE: 2  
64 Met Gln Pro Pro Pro Asp Glu Ala Arg Arg Asp Met Ala Gly Asp Thr  
65 1 5 10 15  
66 Gln Trp Ser Arg Pro Glu Cys Gln Ala Trp Thr Gly Thr Leu Leu Leu  
67 20 25 30  
68 Gly Thr Cys Leu Leu Tyr Cys Ala Arg Ser Ser Met Pro Ile, Cys Thr  
69 35 40 45  
70 Val Ser Met Ser Gln Asp Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile  
71 50 55 60  
72 Val Leu Ser Ser Phe Phe Trp Gly Tyr Cys Leu Thr Gln Val Val Gly  
73 65 70 75 80  
74 Gly His Leu Gly Asp Arg Ile Gly Gly Glu Lys Val Ile Leu Leu Ser  
75 85 90 95  
76 Ala Ser Ala Trp Gly Ser Ile Thr Ala Val Thr Pro Leu Leu Ala His  
77 100 105 110  
78 Leu Ser Ser Ala His Leu Ala Phe Met Thr Phe Ser Arg Ile Leu Met  
79 115 120 125  
80 Gly Leu Leu Gln Gly Val Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser  
81 130 135 140  
82 Gln Lys Val Arg Glu Ser Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly  
83 145 150 155 160  
84 Ala Gly Ser Gln Phe Gly Thr Leu Leu Thr Gly Ala Val Gly Ser Leu  
85 165 170 175  
86 Leu Leu Glu Trp Tyr Gly Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly  
87 180 185 190  
88 Leu Thr Leu Leu Trp Val Trp Tyr Val Tyr Arg Tyr Leu Leu Ser Glu  
89 195 200 205  
90 Lys Asp Leu Ile Leu Ala Leu Gly Val Leu Ala Gln Ser Arg Pro Val  
91 210 215 220  
92 Ser Arg His Ser Arg Val Pro Trp Arg Arg Leu Phe Arg Lys Pro Ala  
93 225 230 235 240  
94 Val Trp Ala Ala Val Val Ser Gln Leu Ser Ala Ala Cys Ser Phe Phe  
95 245 250 255  
96 Ile Leu Leu Ser Trp Leu Pro Thr Phe Phe Glu Glu Thr Phe Pro Asp  
97 260 265 270  
98 Ala Lys Gly Trp Ile Phe Asn Val Val Pro Trp Leu Val Ala Ile Pro  
99 275 280 285  
100 Ala Ser Leu Phe Ser Gly Phe Leu Ser Asp His Leu Ile Asn Gln Gly  
101 290 295 300  
102 Tyr Arg Ala Ile Thr Val Arg Lys Leu Met Gln Gly Met Gly Leu Gly  
103 305 310 315 320  
104 Leu Ser Ser Val Phe Ala Leu Cys Leu Gly His Thr Ser Ser Phe Cys  
105 325 330 335  
106 Glu Ser Val Val Phe Ala Ser Ala Ser Ile Gly Leu Gln Thr Phe Asn  
107 340 345 350  
108 His Ser Gly Ile Ser Val Asn Ile Gln Asp Leu Ala Pro Ser Cys Ala

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Input Set : A:\LEX-0143-USA SEQLIST.txt  
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109	355	360	365	
110	Gly Phe Leu Phe Gly Val Ala Asn Thr Ala Gly Ala Leu Ala Gly Val			
111	370	375	380	
112	Val Gly Val Cys Leu Gly Gly Tyr Leu Met Glu Thr Thr Gly Ser Trp			
113	385	390	395	400
114	Thr Cys Leu Phe Asn Leu Val Ala Ile Ile Ser Asn Leu Gly Leu Cys			
115	405	410	415	
116	Thr Phe Leu Val Phe Gly Gln Ala Gln Arg Val Asp Leu Ser Ser Thr			
117	420	425	430	
118	His Glu Asp Leu			
119	435			
121	<210> SEQ ID NO: 3			
122	<211> LENGTH: 1179			
123	<212> TYPE: DNA			
124	<213> ORGANISM: Homo sapiens			
126	<400> SEQUENCE: 3			
127	atgaccctga caagcaggcg ccaggacagt caggaggcca ggcccgagtg ccaggcatgg		60	
128	acggggacgc tgctgctggg cacgtgcctt ctgtactgcg cccgctccag catgcccata		120	
129	tgcaccgtct ccatgagcca ggacttcggc tggacaacaaga aggaggccgg catcggtctc		180	
130	agcagttctc tctggggcta ctgcctgaca caggttgtgg gccggccacct cggggatcgg		240	
131	attgggggttg agaaggctat cctgctgtca gcctctgcct ggggctccat cacggccgtc		300	
132	accccactgc tcgcccaccc gaggcgtgcc cacctggcct tcatgacccct ctacacgcata		360	
133	ctcatgggct tgctccaagg gtttacttc cctgcctga ccagcctgtc gtgcagaag		420	
134	gtgcgggaga gtgagcgagc cttcacctac agcatcggtt ggcggcgtc ccagtttggg		480	
135	acgctgtca cccggccgtt gggctccctg ctccctggaaat ggtacggctg gcagagcata		540	
136	tcttattttc cccggggcctt cacccgtt tgggtgtgtt acgtgtacag gtacccgtgt		600	
137	agtaaaaaaat atctcatctt ggcctgggtt gtcctggccc aaagccggcc ggtgtccagg		660	
138	cacagcagag tcccctggag acggctcttc cggaaacccctg ctgtctggc agccgtcgatc		720	
139	tcccagctct ctgcagccctt ctccttcttc atccctctt cctggctgcc caccccttcc		780	
140	gaggagaccc tcccccacgc caagggtctgg atcttcaacg tggttccctt gttgtggcg		840	
141	atccggcca gtctatttcag cgggtttctc tctgtatcatc tcatcaatca gggttacaga		900	
142	gccccatcacgg tgccggaaatc catgcaggcc atggccctt gcctctccag cgtctttgt		960	
143	ctgtgcctgg gcccacaccc cagttctgtt gagttgtgg tctttgcata agccctccatc		1020	
144	gcccctccaga cttcaacca cagtggcatt tctgttaaca tccaggactt gccccgtcc		1080	
145	tgcggccggct ttctgtttgg tggccaaac acagccgggg cttggcagg tgagggggcg		1140	
146	gcctctgtgc ccaggagttc ccctgtctgtt ggggtttga		1179	
148	<210> SEQ ID NO: 4			
149	<211> LENGTH: 392			
150	<212> TYPE: PRT			
151	<213> ORGANISM: Homo sapiens			
153	<400> SEQUENCE: 4			
154	Met Thr Leu Thr Ser Arg Arg Gln Asp Ser Gln Glu Ala Arg Pro Glu			
155	1 5 10 15			
156	Cys Gln Ala Trp Thr Gly Thr Leu Leu Leu Gly Thr Cys Leu Leu Tyr			
157	20 25 30			
158	Cys Ala Arg Ser Ser Met Pro Ile Cys Thr Val Ser Met Ser Gln Asp			
159	35 40 45			
160	Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile Val Leu Ser Ser Phe Phe			
161	50 55 60			

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Input Set : A:\LEX-0143-USA SEQLIST.txt  
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162 Trp Gly Tyr Cys Leu Thr Gln Val Val Gly Gly His Leu Gly Asp Arg  
 163 65 70 75 80  
 164 Ile Gly Gly Glu Lys Val Ile Leu Leu Ser Ala Ser Ala Trp Gly Ser  
 165 85 90 95  
 166 Ile Thr Ala Val Thr Pro Leu Leu Ala His Leu Ser Ser Ala His Leu  
 167 100 105 110  
 168 Ala Phe Met Thr Phe Ser Arg Ile Leu Met Gly Leu Leu Gln Gly Val  
 169 115 120 125  
 170 Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser Gln Lys Val Arg Glu Ser  
 171 130 135 140  
 172 Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly Ala Gly Ser Gln Phe Gly  
 173 145 150 155 160  
 174 Thr Leu Leu Thr Gly Ala Val Gly Ser Leu Leu Leu Glu Trp Tyr Gly  
 175 165 170 175  
 176 Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly Leu Thr Leu Leu Trp Val  
 177 180 185 190  
 178 Trp Tyr Val Tyr Arg Tyr Leu Leu Ser Glu Lys Asp Leu Ile Leu Ala  
 179 195 200 205  
 180 Leu Gly Val Leu Ala Gln Ser Arg Pro Val Ser Arg His Ser Arg Val  
 181 210 215 220  
 182 Pro Trp Arg Arg Leu Phe Arg Lys Pro Ala Val Trp Ala Ala Val Val  
 183 225 230 235 240  
 184 Ser Gln Leu Ser Ala Ala Cys Ser Phe Phe Ile Leu Leu Ser Trp Leu  
 185 245 250 255  
 186 Pro Thr Phe Phe Glu Glu Thr Phe Pro Asp Ala Lys Gly Trp Ile Phe  
 187 260 265 270  
 188 Asn Val Val Pro Trp Leu Val Ala Ile Pro Ala Ser Leu Phe Ser Gly  
 189 275 280 285  
 190 Phe Leu Ser Asp His Leu Ile Asn Gln Gly Tyr Arg Ala Ile Thr Val  
 191 290 295 300  
 192 Arg Lys Leu Met Gln Gly Met Gly Leu Gly Leu Ser Ser Val Phe Ala  
 193 305 310 315 320  
 194 Leu Cys Leu Gly His Thr Ser Ser Phe Cys Glu Ser Val Val Phe Ala  
 195 325 330 335  
 196 Ser Ala Ser Ile Gly Leu Gln Thr Phe Asn His Ser Gly Ile Ser Val  
 197 340 345 350  
 198 Asn Ile Gln Asp Leu Ala Pro Ser Cys Ala Gly Phe Leu Phe Gly Val  
 199 355 360 365  
 200 Ala Asn Thr Ala Gly Ala Leu Ala Gly Glu Gly Arg Ala Ser Val Pro  
 201 370 375 380  
 202 Arg Ser Ser Pro Val Cys Gly Val  
 203 385 390  
 205 <210> SEQ ID NO: 5  
 206 <211> LENGTH: 1197  
 207 <212> TYPE: DNA  
 208 <213> ORGANISM: Homo sapiens  
 210 <400> SEQUENCE: 5  
 211 atgcagccac cccccagacga ggcccgccagg gacatggccg gggacaccca gtggccagg 60  
 212 cccgagtgcc aggcatggac gggacgcgtg ctgctggca cgtgccttct gtactgcgcc 120

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Input Set : A:\LEX-0143-USA SEQLIST.txt  
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213	cgctccagca	tgcccatctg	caccgtctcc	atgagccagg	acttcggctg	gaacaagaag	180
214	gaggccggca	tcgtgttcag	cagttcttc	tgggctact	gcctgacaca	ggttgtggc	240
215	ggccacatcg	gggatcgat	tgggggttag	aaggcatcc	tgctgtcagc	ctctgcctgg	300
216	ggctccatca	cggccgtcac	cccactgctc	gcccacctga	gcagtgcaca	cctggccttc	360
217	atgacatctt	cacgcatctt	catgggctt	ctccaagggg	tttacttccc	tgccttgacc	420
218	agcctgtgt	cgcagaagg	gcgggagagt	gagcagacct	tcacctacag	catcgtggc	480
219	gcccgtcccc	agtttggac	gctgtgacc	ggggcggtgg	gctccctgt	cctggaatgg	540
220	tacggctggc	agagcatctt	ctatttctcc	ggcggcctca	ccttgcttg	ggtgtggta	600
221	gtgtacagg	acctgtgag	tgaaaaagat	ctcatcctgg	ccttgggtgt	cctggcccaa	660
222	agccggccgg	tgtccaggca	cagcagatc	ccctggagac	ggctcttccg	gaagcctgct	720
223	gtctgggca	ccgtcgcttc	ccagctctt	gcagctgtct	ccttcttcat	cctcccttc	780
224	tggctccca	ccttcttca	ggagaccttc	cccgacgcca	agggctgat	cttcaacgtg	840
225	gttccttgg	tggtggcgat	tccggccagt	ctattcagcg	ggtttcttc	tjatcatctc	900
226	atcaatcagg	tttacagagc	catcacggt	cgaaagctca	tgcaggccat	ggcccttggc	960
227	ccttccagcg	tcttgctct	gtgcctgggc	cacaccca	gcttctgtga	gtctgtggtc	1020
228	tttgcattcag	cctccatcgg	cctccagacc	ttcaaccaca	gtggcatttc	tgttaacatc	1080
229	caggacttgg	ccccgtcctg	cgccggctt	ctgttggtg	tggccaacac	agccggggcc	1140
230	ttggcagg	agggccgggc	ctctgtgccc	aggagttccc	ctgtctgtgg	ggtttga	1197

232 <210> SEQ ID NO: 6

233 <211> LENGTH: 398

234 <212> TYPE: PRT

235 <213> ORGANISM: Homo sapiens

237 <400> SEQUENCE: 6

238	Met	Gln	Pro	Pro	Pro	Asp	Glu	Ala	Arg	Arg	Asp	Met	Ala	Gly	Asp	Thr
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240	Gln	Trp	Ser	Arg	Pro	Glu	Cys	Gln	Ala	Trp	Thr	Gly	Thr	Leu	Leu	Leu
241								20			25			30		
242	Gly	Thr	Cys	Leu	Leu	Tyr	Cys	Ala	Arg	Ser	Ser	Met	Pro	Ile	Cys	Thr
243								35			40			45		
244	Val	Ser	Met	Ser	Gln	Asp	Phe	Gly	Trp	Asn	Lys	Lys	Glu	Ala	Gly	Ile
245							50			55			60			
246	Val	Leu	Ser	Ser	Phe	Phe	Trp	Gly	Tyr	Cys	Leu	Thr	Gln	Val	Val	Gly
247							65			70			75			80
248	Gly	His	Leu	Gly	Asp	Arg	Ile	Gly	Gly	Glu	Lys	Val	Ile	Leu	Leu	Ser
249							85			90			95			
250	Ala	Ser	Ala	Trp	Gly	Ser	Ile	Thr	Ala	Val	Thr	Pro	Leu	Leu	Ala	His
251							100			105			110			
252	Leu	Ser	Ser	Ala	His	Leu	Ala	Phe	Met	Thr	Phe	Ser	Arg	Ile	Leu	Met
253							115			120			125			
254	Gly	Leu	Leu	Gln	Gly	Val	Tyr	Phe	Pro	Ala	Leu	Thr	Ser	Leu	Leu	Ser
255							130			135			140			
256	Gln	Lys	Val	Arg	Glu	Ser	Glu	Arg	Ala	Phe	Thr	Tyr	Ser	Ile	Val	Gly
257							145			150			155			160
258	Ala	Gly	Ser	Gln	Phe	Gly	Thr	Leu	Leu	Thr	Gly	Ala	Val	Gly	Ser	Leu
259							165			170			175			
260	Leu	Leu	Glu	Trp	Tyr	Gly	Trp	Gln	Ser	Ile	Phe	Tyr	Phe	Ser	Gly	Gly
261							180			185			190			
262	Leu	Thr	Leu	Leu	Trp	Val	Trp	Tyr	Val	Tyr	Arg	Tyr	Leu	Leu	Ser	Glu
263							195			200			205			

**VERIFICATION SUMMARY**

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DATE: 08/21/2001

TIME: 11:49:42

Input Set : A:\LEX-0143-USA SEQLIST.txt  
Output Set: N:\CRF3\08162001\I800103.raw

L:19 M:270 C: Current Application Number differs, Replaced Current Application No  
L:19 M:271 C: Current Filing Date differs, Replaced Current Filing Date